

# How to Effectively Improve the Operational Efficiency and Service Quality of Shared Bicycles in Mega-Cities - Taking Beijing's Commuters as An Example

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**Abstract:** After more than 30 years of rapid development through reform and opening up, China has witnessed the emergence of a group of mega metropolises, which have brought unprecedented population concentration and economic prosperity. Naturally, they have become the leading cities in our country. Of course, this development process also comes with a series of issues. This article focuses on discussing the issue of shared bicycles in the context of transportation development history, exploring how to better develop shared bicycles and effectively improve their operational efficiency and service quality in these mega cities. This can better promote and coordinate urban transportation development.

**Keywords:** Shared bicycles, Operational efficiency, Service quality, Transportation development.

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## 1. Introduction

As the capital city of China, Beijing boasts an ultra-first-tier population size and density. It possesses a well-developed transportation system with supporting facilities that are unparalleled. Additionally, it enjoys incomparable political and international status as well as having the highest number of top-notch universities and renowned hospitals domestically. Moreover, it has various types of job positions catering to different social strata along with numerous food delivery companies and couriers.

Managing this great capital city smoothly every day is undoubtedly challenging. However, in this article we only discuss public transportation sector while focusing solely on how to bravely face and solve the problem related to shared bicycles.

This article discusses, analyzes, and resolves issues regarding low operational efficiency and poor service quality of shared bicycles from four aspects.

## 2. Current Traffic Situation of Beijing

When the alarm clock rings at 5:30 a.m., the subway trains begin to leave early. At this time, some office workers who live far away from their workplaces begin to wake up. Some people drive their private cars from one end of Beijing to the other; Some people wake up to ride a bike or take a bus and then transfer to the subway to go to work; Some people walk directly to the subway station, take the subway to the office and then transfer to the bus or ride a shared bike to reach the destination. Later at 6:30, some of the closer workers began to wake up, and they rode electric cars, bicycles to work or directly took the bus and subway to work. At this time, the morning rush hour begins and will last until after 9 o'clock. So some companies clock in at 8, 9, 9:30 or even 10 in the morning. In turn, their time off work will be correspondingly delayed.

At noon, some office workers will order takeout, and some will walk to nearby restaurants, and far away, they will prefer shared bicycles to nearby restaurants, which will be very

convenient. Some office workers also use the short time at noon to ride a bicycle to the nearby pharmacy or supermarket and so on.

With the bell ringing at 5:30 p.m., the first people from work began to return home. The vast majority walk, ride a shared bike or take the bus to the subway station and then home. At this time the evening rush hour begins. Then private cars, taxis, buses, shared bikes, motorcycles appeared together on the crowded roads. The evening summit continued high around 9 p.m. After 9 o'clock, there will be a lot of shared bikes and taxis on the road[1].

On weekends, many workers start a relaxed life, they will walk to ride shared bikes to the nearby park, bus station, subway station, and then start a wonderful weekend shopping and eating and drinking fun.

Therefore, whether the traffic in Beijing is a break time on weekdays or weekends, there is always an endless stream of vehicles on the road.

## 3. At Present, Beijing Is The Status Quo In the Field of Shared Bicycles

As far as users are concerned, they can be divided into: students, teachers, workers, retired people, freelancers and so on[2]. The largest groups are migrant workers and students and teachers and so on. There are three reasons: First, these people are ordinary people, in the middle and lower levels of society, there is no rich economic income, need to be frugal and efficient means of transportation to improve travel efficiency. Second, shared bicycles are allocated to the last kilometer of the bus station and subway station, shared bicycles play a very important role here. Third, shared bicycles are indeed healthy and convenient, convenient for these ordinary people. So in the morning and evening rush hours, students, teachers, office workers go out together, the road is full of their figure. Therefore, how to efficiently provide efficient and convenient services to the public has become a key concern of bike-sharing companies and Beijing traffic management departments.

## 4. How to Improve the Efficiency of Shared Bicycles

After the previous two points of understanding of the current situation of traffic development, we have the following suggestions to improve the efficiency of shared bicycles:

1. In the morning or evening rush hour, the managers of the bike-sharing companies in each district of Beijing should have a deep understanding of the service groups in the area, and should be familiar with the locations of the bus stations, subway stations and large companies in the work gathering places in the district. Only the management of the company knows this and that, in order to better serve the general public during the peak period of the road[3].

2. The company shall have enough vehicle dispatching personnel and be responsible for the exclusive area to have a clear understanding of the use of vehicles in the area, so that when the morning peak or evening peak comes, it can predict early whether there are too many or too few vehicles in the area, and carry out timely dispatching, so that the shared bicycles can meet the normal use of the area[4].

3. The management of the company shall send special personnel to supervise and inspect the quality of the shared bicycles under its own company. Timely find some vehicles that cannot ride normally and some vehicles with serious safety hazards, so as to find and dispose of them as early as possible, so as to improve the service efficiency of our company[5].

4. The company shall use the current Beidou satellite positioning system, Alipay, wechat or the company's app to complete the order and other background big data information to grasp the real-time matching degree of service vehicles in various regions of Beijing and users, and do a good job in overall scheduling[6].

5. The company should conduct offline questionnaire surveys in a timely manner to understand the psychology of customers, the problems that customers are most concerned about, and the aspects that the management of the company has not taken into account[7].

6. It is suggested that shared bicycle managers can choose more convenient and reasonable parking points, which can facilitate the parking of travelers and improve the convenience and experience of riding.

## 5. How to Improve the Service Quality of Shared Bicycles

After the previous three points of understanding of traffic, we have the following suggestions to improve the service quality of shared bicycles:

1. The company should timely develop high-quality shared bicycles to meet the high-quality requirements of customers. The company wants to develop more popular products and looks.

2. Under the concept of green and sustainable development, in order to promote the green and healthy development of the city, the company should reduce the fee standard for shared bicycles, so that office workers can better choose green travel methods[8].

3. In large cities such as Beijing, it is recommended to arrange some electric vehicles to serve the majority of public friends, so that some long-distance trips can choose shared bicycles to travel.

4. It is suggested that there are enough and more reasonable bicycle and shared bicycle parking points at the exit of bus stations and subway stations to facilitate the parking of public friends and facilitate travel, so that everyone does not have to worry about the problem of parking difficulties. When there are standardized bicycles and shared bicycles parking points, it is also convenient to manage, and it also helps to enhance the image of the whole city.

5. It is suggested to improve the positioning accuracy of shared bicycle parking points, which can not only facilitate cyclists to find parking locations faster, but also avoid the situation that cyclists will be deducted if they park at the planned location.

6. Open a variety of customer feedback channels, truly hear the voice of customers, so as to better improve the company's service quality[9].

7. As the builders and users of Beijing's urban green development, we citizens and bike-sharing companies should understand each other and achieve mutual benefit. Citizen friends, we should take care of shared bicycles, take care of you and me, and green depends on everyone.

## 6. How to Face the Bright Future of Shared Bicycles

1. Government agencies and units should vigorously support the use of shared bicycles to provide a good environment and services to the public and companies

2. The government should start from a macro perspective, and plan the perfect cooperation and cooperation of bus stops, subway stations and shared bicycle parking points as a whole.

3. The government should build more spacious bicycle roads, more reasonable, more convenient and more suitable bicycle parking points, and actively promote green travel methods such as walking and sharing bicycles, so as to add green vitality and vitality to the society[10].

4. Traffic management departments should resolutely deal with parked vehicles that occupy bicycle roads for a long time, and provide a comfortable road environment for groups such as cycling, sharing bicycles, and walking.

5. Shared bicycle managers should make full use of big data and give full play to the role of vehicle dispatchers to better and more reasonable service for public travel[11].

6. As passengers, we should abide by the traffic rules and the management of the shared bicycle company, take good care of public transportation, and park and place them neatly in the correct parking spots. We should work together to create a good environment together, so as to move towards a positive cycle.

## 7. Concluding Remarks

The 21st century is the century of rapid economic development, the color of the 21st century is green, our common goal is the harmonious development of man and nature, and common progress. Just as the traditional education says: clear water and green mountains are the way to last. Therefore, we must take good care of the environment and be personally involved rather than talking about it. Caring for Beijing depends on the joint efforts of all. As far as shared bicycle transportation in the field of transportation is concerned, passengers and managers of shared bicycle companies need to work together, think from each other's point of view and jointly care for our public transportation. Bike-sharing is one of the greenest and healthiest forms of

transportation. It not only meets the needs of the public for short distance common travel, but also convenient parking, free, fast and affordable. Under the green concept and the bright prospect of future development, I believe the future of shared bicycles is bright[12].

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